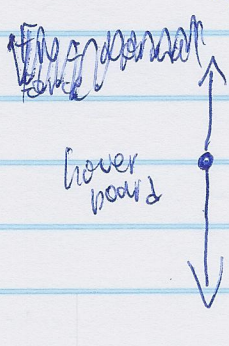
IB LEN Project 1.

Study Strategies

physics.

centre of gravity is assumed.
Isolated system

Assume mass = 100kg.
80 for person 20 for board
$g = 9.8\ m.s^{-2}$



Thrust = 980 N + ...

gravity = force exerted by Earth on hover board. $F = mg$ $\therefore F = 100 \times 9.8 = 980N$

hover Thrust = 980 N ($kg.s^{-2}$) $\therefore a = 0$.

It should hover 0,5 M off the ground.

$\therefore E_K = 0$. $E_P = E_{high}$.

$\therefore E_P = (100)(9.8)(0,5^{-1})$

$= 4905$.

$F = ma$. then acc to specific height.

See Aerodynamics.

#1

ELEN project 1

Defn Hover.

estimate cost, specs, supplier. referenciable Tech.

Drawings by hand + CAD.

Need budget.

safety 30km/h wind. blowback. How person stay on it.

Control / stop

Give high level design not really circuitry.

All calcs for marks.

Super Detail.

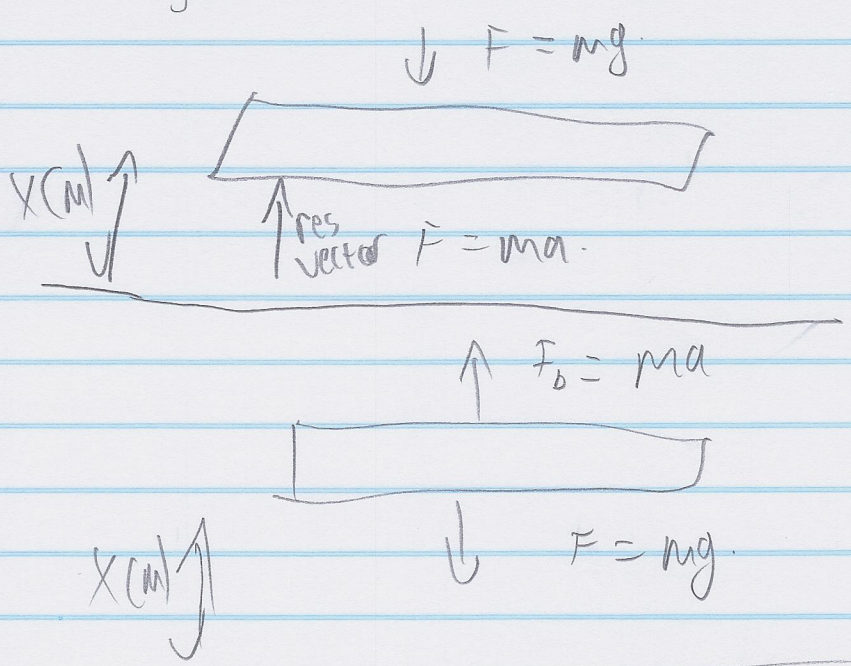
Appendix Not page limit.

No Double sided

Mention Assumptions made.

physics.

$g = 9.8\ m/s^2$



centre of gravity Can be assumed.

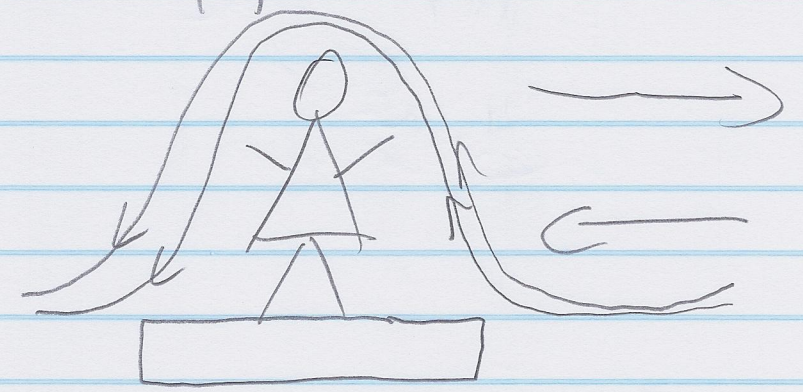
Do Dot.

Isolated system

a(+g)

Movement sideways ↕ boats steering - Also hover.

ELEN Project 1.



studies person 30km/h.
plausable 30km/h without killing.

wind wind drag.

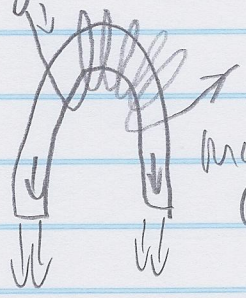
Jet
Turbine/wind
Wings.
Magnets
Tacheons
water wheel.
space Thruster.

User Interface.
surfboard is not right design.
Air density.
No Control panel
segway Tech.
plate, each switch.
Micro implant.
weight, accelerometer sensor.
with lower weight compensation
emergency brake.
PSU.
* existing infrastructure

Control Diagram
Block Diagram.
appropriate eqn + calcs.
Matlab simulation
Centre of gravity.
board = super cap.
Lifetime.
Max height.

E lex Project

electromagnet.



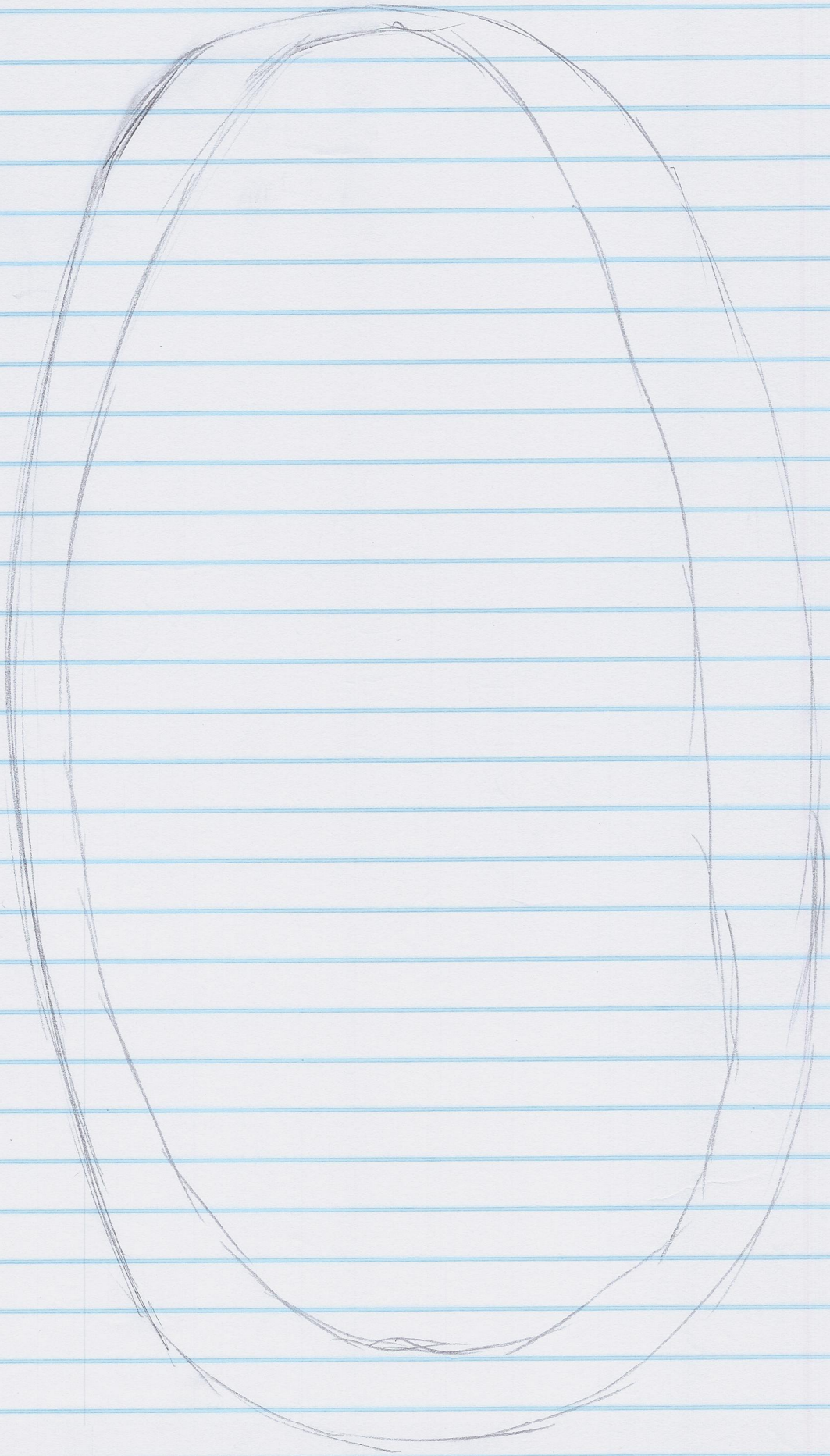
material current.

Ref indv idea. Name Std num:

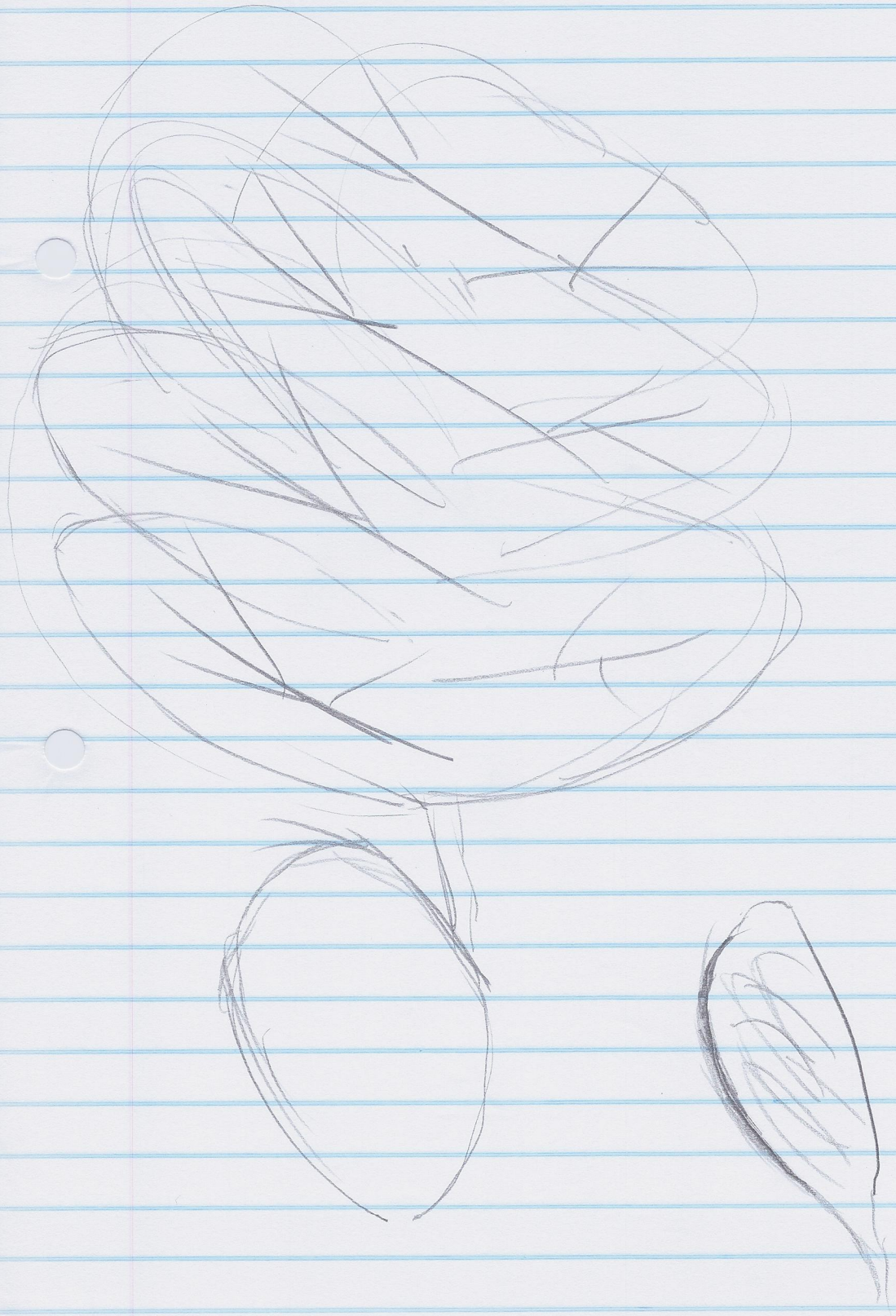
Oral presentations have to come both days.

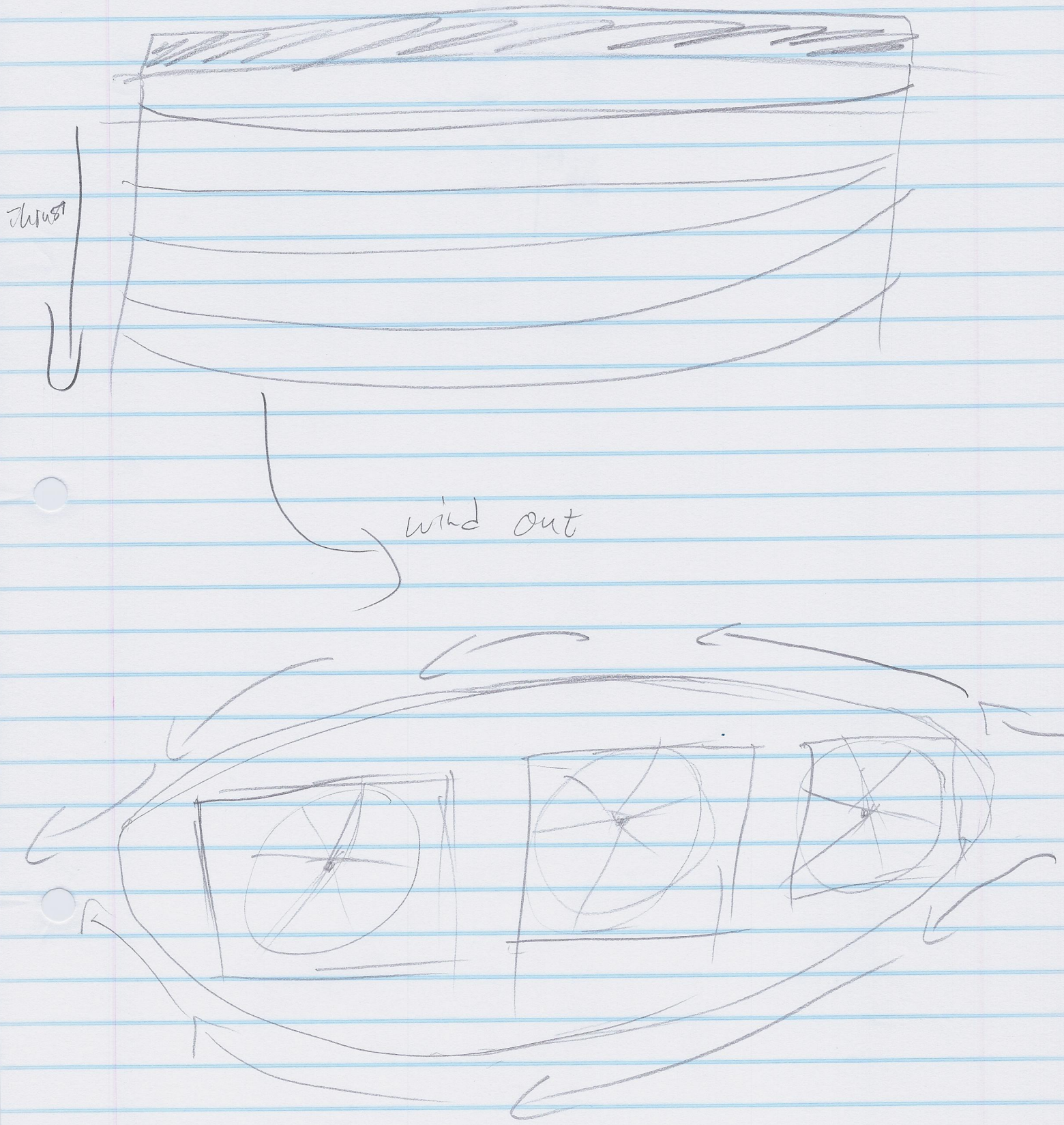
7/19/85

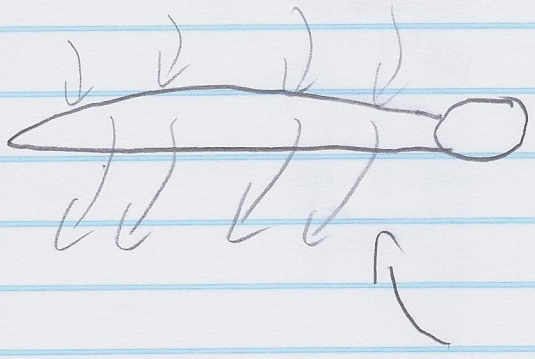
Elen project | Hoverboard



Èleν proj 1.




thrust
wind out



curved blade
wind pushed
down
find eqn